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Date: May 24, 2007By: Eileen M. Janikowski

Eileen M. Janikowski

**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: MICHAIL TSATSANIS

EXAMINER: KHAI TRAN

APPLICATION NO.: 10/813,881

ART UNIT: 2611

FILED: MARCH 30, 2004

CONF. NO: 5755

FOR: **ITERATIVE WATERFILING WITH EXPLICIT  
BANDWIDTH CONSTRAINTS**

**TRANSMITTAL FOR REQUEST FOR CORRECTED FILING  
RECEIPT AND CORRECTION TO PRIORITY CLAIM**

Office of Initial Patent Examination,  
Filing Receipt Corrections  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

1. Transmitted herewith are the following:

- This Transmittal;
- Request for Corrected Filing Receipt;
- Copy of Filing Receipt and red-lined copy of Filing Receipt;
- Copy of first page of Specification as filed on March 30, 2004;
- Copy of Preliminary Amendment filed on July 9, 2004; and
- Return postcard.

2. Entity Status

- Applicant claims Small Entity status. See 37 C.F.R. § 1.27.

3. Fees

- No fees are believed to be due for this request, however, please charge any underpayment in fees for timely filing of this transmittal and enclosures to Deposit Account No. 50-2207.

Respectfully submitted,



Brian R. Coleman  
Reg. No. 39,145

Date: May 24, 2007

Correspondence Address:

Customer No. 22918  
Perkins Coie LLP  
P.O. Box 2168  
Menlo Park, CA 94026-2168

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**REQUEST FOR CORRECTED FILING RECEIPT AND CORRECTION TO  
PRIORITY CLAIM**

Office of Initial Patent Examination,  
Filing Receipt Corrections  
Commissioner for Patents  
P.O. Box 1460  
Alexandria, VA 22313-1450

Sir:

1. Attached is a copy of an official filing receipt received from the U.S. Patent and Trademark Office for which a corrected filing receipt and correction to priority claim is respectfully requested. Also attached is a redlined copy of the filing receipt showing the requested change.
2. The domestic priority was not listed on the filing receipt. It should read as follows:
  - This application claims benefit to U.S. Provisional Patent Application No. 60/546,616, filed on February 20, 2004 –.
3. An appropriate priority claim (uniquely identifying the provisional application by title, inventor and filing date) was present in the first paragraph of the specification of the present application as filed.
4. The specification of the present application was amended to include the application no. of the provisional by way of preliminary amendment.
5. A copy of the first page of the specification as filed on March 30, 2004, and a copy of the Preliminary Amendment filed July 9, 2004 are attached.

6. No fees are believed to be due for this request, however, please charge fees for this request and/or credit to Deposit Account No. 50-2207 2207 (additional copy of this document is attached).

Respectfully submitted,  
Perkins Coie LLP

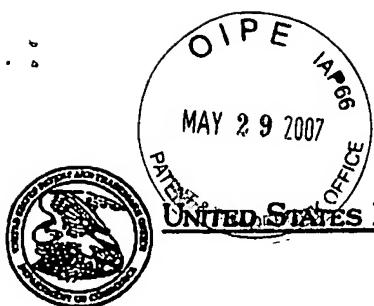


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(650) 838-4300

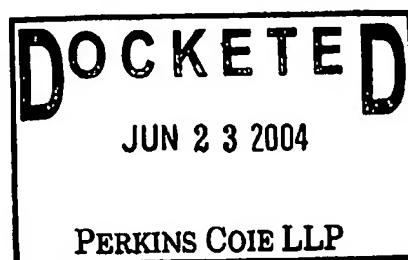


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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/813,881	03/30/2004	2631	543	59028-8003.US01	6	28	5

22918  
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MENLO PARK, CA 94026



CONFIRMATION NO. 5755  
FILING RECEIPT  
  
•OC000000012965403•

Date Mailed: 06/16/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Michail Tsatsanis, Irvine, CA;

**Domestic Priority data as claimed by applicant****Foreign Applications****If Required, Foreign Filing License Granted:** 06/16/2004**Projected Publication Date:** 10/06/2005**Non-Publication Request:** No**Early Publication Request:** No**\*\* SMALL ENTITY \*\*****Title**

Iterative watermarking with explicit bandwidth constraints

**Preliminary Class**

375

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**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

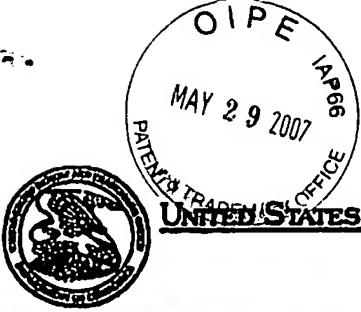
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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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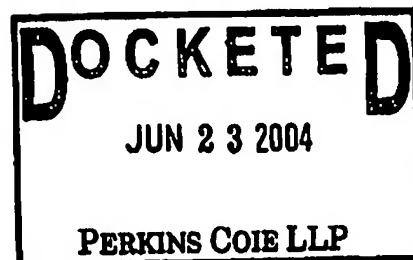


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PERKINS COIE LLP

CONFIRMATION NO. 5755  
FILING RECEIPT  
  
OC000000012885403

Date Mailed: 08/16/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-748-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Michail Tsatsanis, Irvine, CA;

**Domestic Priority data as claimed by applicant**

This application claims benefit to 60/546,616, filed 2/20/2004  
Foreign Applications

**If Required, Foreign Filing License Granted: 08/16/2004****Projected Publication Date: 10/08/2005****Non-Publication Request: No****Early Publication Request: No****'' SMALL ENTITY ''****Title**

Iterative waterfilling with explicit bandwidth constraints

**Preliminary Class**

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CCTV

# ITERATIVE WATERFILING WITH EXPLICIT BANDWIDTH CONSTRAINTS

by inventor

Michail Tsatsanis

## CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of Michail Tsatsanis's U.S. Provisional Patent Application entitled "ITERATIVE WATERFILING WITH EXPLICIT BANDWIDTH CONSTRAINTS", and filed on February 20, 2004, and which is hereby incorporated by reference in its entirety.

## BACKGROUND OF THE INVENTION

### Field of the Invention

[0001] The present invention is concerned with the allocation of spectral bands to the upstream and downstream directions in twisted pair modem communications. Specifically, the invention aims at a spectral management scheme that minimizes interference among transmissions in different pairs and can accommodate mixtures of symmetric and asymmetric services in the same binder group of twisted pairs. The invention further relates to a dynamic and distributed spectral management paradigm that can be implemented through a set of simple rules.

### Prior art

[0002] Communication systems that interconnect users over twisted pair wireline connections are being developed to support broadband data communication. Recent developments in broadband communication protocols allow broadband data to be overlaid on these existing twisted pair connections that also carry narrowband voice or integrated service